

National Bee-Keepers' Convention at San Antonio, Texas,
Oct. 31 and Nov. 1, 2.

American Bee Journal



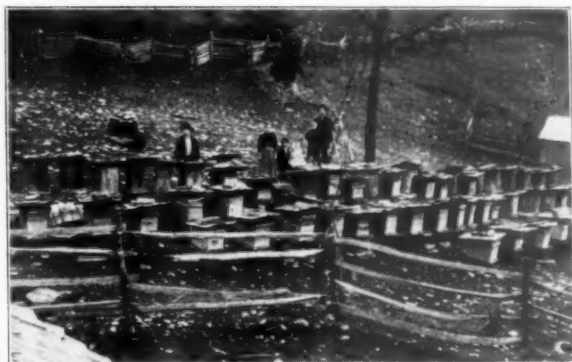
45th Year

CHICAGO, ILL., JUNE 22, 1905

No. 25

A QUARTET OF APIARIES

(See page 436)



Apiary and Family of J. M. Mosteller,
of Cherokee Co., N. C.



Part of Apiary of Chas. G. Macklin,
of Whiteside Co., Ill.



Home Apiary of James McNeill,
of Columbia Co., N. Y.



Apiary of L. W. Elmore, of Jefferson Co., Iowa,
in Winter.

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SOUTHWEST—
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CONVERSATIONS—
By G. M. Doolittle, N. Y.

EDITORIALS—
By E. R. Root

Volume XXXIII MAY 15, 1905 Number 10

GLEANINGS

IN BEE CULTURE

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GEORGE W. YORK, Editor

CHICAGO, ILL., JUNE 22, 1905

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IMPORTANT NOTICES

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Objects of the Association

- 1st.—To promote the interests of its members.
- 2d.—To protect and defend its members in their lawful rights.
- 3d.—To enforce laws against the adulteration of honey.

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(INCORPORATED)

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2. To publish facts about honey, and counteract misrepresentations of the same.

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GEORGE W. YORK, Manager,
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To a subscriber whose own subscription to the American Bee Journal is paid at least to the end of 1905, we will give an untested Italian queen for sending us ONE NEW subscription with \$1.00 for the Bee Journal a year. Now is a good time to get new subscribers. If you wish extra copies of the Bee Journal for use as samples, let us know how many you want and we will mail them to you. Address all orders to the office of the American Bee Journal.

THE AMERICAN BEE JOURNAL is absolutely an independent publication, and not connected with any bee-supply business whatsoever. It stands entirely upon its merits as an educative force in the field of bee-keeping, and as a medium for legitimate advertisers in apicultural or other lines. It is the oldest, and only weekly, journal of its kind in America. Its publishers believe that it deserves to be in the hands of every would-be progressive successful bee-keeper in the land. It is in its 45th year, and to-day is acknowledged to be better in every way than at any time during its long and honorable history.

Editorial Notes and Comments

Hive-Ventilation During Harvest

A good many bee-keepers probably fail to get the benefit they might have from a sufficient amount of hive-ventilation during the time bees are storing. In many cases the hive-entrance is the same in July as it was in March. In March a strong colony may do with not more than one square inch for its entrance; but ten times that amount will be better when the harvest comes, partly because of the greater strength of the colony, and partly because of the greater heat of the surrounding atmosphere.

Those who run their bees for comb honey have perhaps no successful plan for giving ventilation except at the bottom of the hive, either by a large entrance or by raising the hive on blocks at each corner. But in running for extracted honey one need not be so careful where the cool air strikes, and can have an opening at the roof, perhaps by having the cover shoved forward so as to leave a space of $\frac{1}{4}$ inch or more. That allows a passage of air clear through the hive. No need to worry if rain should beat into such an opening. This abundant ventilation will make the bees more comfortable, and in some cases—indeed, in many cases—may be the means of preventing swarming.

Probably not a few who read these lines would be the gainers to go at once and give the air a better chance to get into their hives. If fearful of the effect of too much fresh air, try it on a few colonies at least.

Foul Brood and Extracted Honey

In an article in the Bee-Keepers' Review, Elmer Todd says:

The principal causes why foul brood spreads faster in an extracting apiary, is due to extracting from combs containing brood, some of which is, occasionally, diseased, and then

transferring such combs to healthy colonies. With such management, the extractor also becomes a source of contagion, and might disease a whole apiary if it were not cleaned after extracting, even one set of combs containing brood taken from a diseased colony.

But he has learned from experience that by using proper precautions, even in a badly infected district, one may work just as safely for extracted as for comb honey; and he gives the following instructions:

Use a queen-excluding zinc between the upper and lower stories, thus confining the queen below, and extract from no comb from the lower story, or from any comb containing brood; also be careful, when filling the upper story for extracting, to use no combs taken from diseased or dead colonies, such as may contain the dried-down scales of the diseased. Do this, and foul brood can be as easily controlled as though the apiary were managed for comb honey.

Commenting on the article, Editor Hutchinson quotes Wm. McEvoy as saying repeatedly that clean, white combs from the super—combs that had never contained brood—were perfectly safe to use when emptied of honey and cleaned by the bees, and concludes by saying:

Once we thought it necessary to burn up hives, bees, combs and honey—then, gradually, we began to learn to save first one thing, then another, and that honey in the supers is not contaminated may be the next thing we will learn.

Doolittle and Pratt on Queen-Rearing

At a meeting of the British Bee-Keepers' Association, reported in the British Bee Journal, Mr. F. W. L. Sladen, after giving an outline of the "Swarthmore" process of queen-rearing, and giving Mr. Pratt credit for doing a good service to queen-rearing by introducing queen-cells mounted in wooden cups, related a comparison he had made, as follows:

In July and August last year I carefully compared Pratt's method of rearing the

queens in a small cage in the top of a brood-comb, with the latest form of Doolittle's method of rearing them 4 or 5 inches from the top between combs of brood separated from the compartment containing the queen by a partition of queen-excluding zinc, by rearing queens by both methods at the same time in the same hive during a honey-flow, in my apiary. In both experiments Pratt's cage was placed in the top of the central comb of the brood-nest. I found that the pupae in it were smaller, and weighed less than those reared by the Doolittle method. The queen-cells by the Doolittle method were large, broad, and pitted all over like good specimens of queen-cells produced naturally under the swarming impulse, while those in Pratt's cage were smaller and narrower, and their walls and cappings were thin and comparatively smooth. The amount of food left in the cells after feeding ceased was less in Pratt's cage, and as the pupae developed into queens it did not grow hard so quickly.

I believe that these results were chiefly caused by the excluding-zinc, by which the queen-cells were closely surrounded, preventing the nurse-bees attending to the queen-cells and feeding the larvae sufficiently, and also to some extent by the queen-cells being placed in the top of the brood-combs, the whole of the upper halves of which were outside the brood-nest (as they always are during the middle and latter part of the queen-rearing season, especially when there is no super on the hive), and were filled with honey, so that a large proportion of field-bees, and a smaller one of nurse-bees, were probably surrounding the queen-cells than if they had been in the brood-nest, and in cool weather the queen-cells, being separated from the brood-nest, would be liable to be chilled.

As the production of well-developed queens is of the first importance, I prefer the form of Doolittle's method above mentioned, and it is not more laborious; on the contrary, it is less so, for giving the queen-cups first to specially-obtained queenless and broodless bees is unnecessary. I find they can be given direct to the queen-rearing compartment of the colony in which they are to be finished, and, if this compartment contains only old brood, they will be accepted satisfactorily here by confining the bees in the compartment for a few hours through the insertion of a wire-cloth partition as by specially-obtained bees. Queens should always be reared inside the brood-nest between combs of brood, and the nurse-bees should have free access to the queen-cells.

Storing Extracted Honey in Tanks

In the Thirtieth Annual Report of the Ontario Agricultural College and Experimental Farm at Guelph, the Lecturer on Apiculture, H. R. Rowsom, gives the following on storing extracted honey:

During the last two years I have been trying to discover the very cheapest and most profitable method of storing extracted honey. When a large amount of honey is to be stored it is found that the 60-pound cans generally used represent a large outlay, and unless sold quickly generally become dilapidated. Large tanks, such as are used for water, vinegar or pickles are expensive, and very much more so when they leak. Oak barrels are costly, and if granulated sugar is taken out of them it costs nearly as much to cooper a barrel together again as to buy a new one. I have been using rectangular tanks made of flooring, the ends and sides of which could be removed after the contents had granulated. Although they were well waxed they sometimes leaked at the corners.

This year [1904] I tried, with entire success, lining these tanks with manilla paper painted with hot paraffin wax. I experimented with dry goods packing cases lined with waxed manilla paper, and found these boxes absolutely proof against leaking.

To store honey in this way a box must be used, the interior of which is free from any projections which would cut the paper when pressed against the sides of the box. Then a full sheet of manilla paper is laid on the bottom of the box (completely covering it), and

another sheet around the interior sides. Where the two ends of this sheet meet in one corner is nailed a carpet strip so as to cover both ends of the paper, and other pieces of carpet strip join the edges of the sheet on the interior sides to the one on the bottom. Manilla paper can be bought in sheets of any length, and 36 or 42 inches wide. Then the paper and carpet strips are painted over with hot wax, and wherever the paper is accidentally torn a small piece of shingle is nailed over the break and then covered with wax. This box makes the very cheapest means for storing extracted honey, and one that is perfectly safe.

Nearly all bee-keepers strain their extracted honey through cheese-cloth. This is a very slow process. The honey runs slowly, especially if it is not very warm, the cloths be-

come clogged with minute particles of wax, and more or less honey is spilled in changing cloths. Others run their honey into tanks; and after the impurities have risen to the surface, they run the clear honey out of the bottom of the tanks. But this can not be done unless the honey is thin, either from heat or from not being sufficiently ripened. I have made this method very reliable by using a large tin storage-can placed out in the sun. The can is painted black so as to absorb heat more readily from the sun. The cover of the can is a wooden frame with glass top, sloping after the manner of a hot-bed sash or solar wax-extractor, and this glass is kept turned towards the sun. When the sun is strong, the honey becomes very warm, and the small particles of wax and other impurities come to the surface.

Miscellaneous News Items

The Washington Bee-Keepers' Association asked the Lewis & Clark Exposition managers for an appropriation of \$7000 for collecting and preparing an apiarian exhibit at Portland, Oreg., this summer. We do not know whether or not they got it, but it showed that the State of Washington did not intend to be left behind in the bee-keeping line.

Apiary of James McNeill.—Mr. McNeill says this about his apiary:

I send a picture of my home apiary with honey-house in the background. In 1880 I began my bee-keeping on this spot with 3 colonies bought from a neighbor. I have produced extracted honey almost exclusively. I have been fairly and uniformly successful, never having had a failure, nor can I record any large yields of honey.

I winter my bees on the summer stands packed with leaves. I started this spring with 170 colonies at this yard.

JAMES MCNEILL.

The San Antonio Convention of the National Bee-Keepers' Association is to be held Tuesday, Wednesday and Thursday, Oct. 31 and Nov. 1 and 2. Texas bee-keepers are planning great things for the convention. Their hospitality and entertainment of convention members promises to be as large and generous in extent as are the bounds of their big State. It will be their opportunity to set the pace for future conventions of bee-keepers. We hope the bee-keepers from all over the country will just "swarm" down on those Texas bee-rangers, and give them the "time of their lives" to "hive" the visitors.

Honey Adulteration in Illinois.—We are indebted to Prof. E. N. Eaton, State Analyst of the Food Commission of Illinois, for a copy of their Fifth Annual Report for 1904. Referring to honey, we find this paragraph:

"The percentage of adulteration recorded in honey, 33 percent, hardly conveys a true idea of the condition of the market. The samples were few, and most of them suspected of adulteration. As a matter of fact, adulteration of honey with glucose, once so prevalent, has been practically driven from the markets."

Surely, the State Food Commission is a good thing, not only for honey-producers, but for all other honest producers of food products. But what the State Food Commissions

need is "more power to their elbows" through the enactment of stringent laws against the adulteration of foods of all kinds. The importance of such laws, and the great need of the work the State Food Commissions are doing, are becoming more and more apparent to the public.

Apiary of L. W. Elmore.—Mr. Elmore wrote us as follows when sending the picture:

I send a snap-shot of part of my apiary of 50 colonies, taken Feb. 4, 1905, after one of our heavy snow-storms. I winter my bees on the summer stands altogether, and have been very successful in wintering, although this spring I have lost several queens. Our fall honey didn't show up at all last fall, consequently a great many colonies, especially late ones, were short on winter rations, and have come up minus this spring. Some bee-keepers have had a heavy loss. My bees are doing well now (May 5). White clover is in abundance. We expect some honey in the near future.

L. W. ELMORE.

Clover and Basswood Prospects are good in Wisconsin. So reports Inspector France, who generally knows all that's going on in that State along the apiarian line. He says there has been some delay in re-issuing his new commission as Inspector of Apiaries, and until he gets it he will be unable to answer the calls for him to go on with the work. So if there are any delays, those who have requested him to come and inspect their bees will now know the reason why. At least those who read the American Bee Journal will know. And, of course, we think every bee-keeper in Wisconsin, as well as elsewhere, should read the old American Bee Journal every week.

Apiary of J. M. Mosteller.—Mr. Mosteller writes as follows:

I am sending a photograph of my apiary and family, so that others may see what North Carolina can do in bee-culture.

I started with the movable-frame hives just last year. The bees wintered well, and I have had 3 swarms so far (May 22). June is the principal swarming month here. Basswood, sourwood, and chestnut are the main honey-plants.

I have 60 colonies of bees, 4 of them Italians, and the rest blacks. I secured an Italian queen in May of last year, and now have the 4 Italian colonies.

North Carolina and northeastern Georgia are about as good a country as can be found for bees.

J. M. MOSTELLER.



Contributed Special Articles

Making a Bee-Hat—Hiving Swarms

BY C. E. MEAD

EVERY one likes his own fixings. A hot bee-veil is as bad as being stung, for some folks.

Take a strip of black wire-cloth 6 or 7 inches wide, depending upon the length of your neck. Make a hoop of it that will just go around the outer rim of a straw hat. Sew the top edge of the wire-cloth to the edge of the brim of the hat. Sew a cylinder of mosquito-bar on the lower edge of the wire, and cut it out so it will fit over the shoulders. Bind the lower edge with cloth having some B B shot or gravel stones in the lower edge. Put it on and button your vest, and your face is safe and cool. Air will go through wire-cloth and not through veiling. You can see through black better than any other shade. To those who do not wear vests in hot weather, sew two pieces of tape to the back flap just where it will come under the arms, and tie over the front or breast-flap.

HIVING INACCESSIBLE SWARMS.

The first swarm I ever hived was in as bad a place as I ever saw. It was on the trunk of an apple-tree that had the top broken off by the wind, and the sprouts had grown on the trunk from 2½ inches thick and less. An old bee-keeper told me mashed burdock leaves wet were offensive to bees. So I took a butter firkin, holding about 5 gallons, and sprung sticks in, which were cut a little larger than the diameter. My companion sprung two of the largest of the sprouts apart and outward, and we put the firkin in against the trunk, then packed burdock leaves right behind the firkin and next to the trunk, so that the bees could not get in there. Then we made an oblique circle of burdock leaves around the trunk, the highest point meeting the packing between the firkin and the trunk. A few bees were put up in the firkin on a sprout, and then by the use of a burning rag on the opposite side from the firkin they were soon stampeded into it.

We carefully spread the sprouts and took the firkin, with a board under it, to the bee-house where we turned it head down, put two sticks on top, and set the hive on them, and let the bees run up into the hive.

You can put a light box or basket, open end down, on top of a limb that is too big to shake, and let the bees run up into that. Then hive to suit. With a branch that you can shake or jar the bees off by bumping, just hold a light box under it and then shake them into it, place the hive over the box, covering the surplus space with a board, and let them run up.

A good way is to put two empty hive-bodies where you wish to have the bees stay. Dump the bees into them and set the hive, with frames, on top of the two bodies, and put on the cover. Remove the two lower bodies in from 5 to 7 days afterward, and put on surplus room, if the season demands it. If the bees are the least bit cross, sprinkle them well with sweetened water. They do not care to sting with honey-sacs full.

Cook Co., Ill.



What Is Honey?—Definitions Reviewed

BY DAVE S. DUNLOP

THE question, What is honey? is one with which chemists as chemists have no concern, and can have no authority.

The question, What is honey? can be answered only by—1st, the naturalist or student of bee-life from a scientific standpoint; 2d, the man who deals in honey as a commercial product—bee-keeper, honey commission merchant; and 3d, the purchaser or consumer of honey—the average mortal.

Prof. Eaton, at the Chicago-Northwestern convention last December, said the Department of Agriculture had asked its chemists for a definition of honey. If this statement is exact, it is very surprising, and the Department of Agriculture is on entirely a wrong track. A chemist, as a chemist, has no more authority to define honey than he has to define water or to define milk. The chemist's work begins just after the definition of a thing has been made. His work is to discover constituent elements, component parts, their proportion and man-

ner of combination. Water is not defined as H₂O, but H₂O is said to form water. The definition of water is settled by long usage, and the chemist merely says that in this thing defined as or called water he finds the constituent elements are hydrogen and oxygen in certain proportions combined in a certain manner. Where the water comes from, be it from clouds, the physical geographer and weather bureau are asked about the matter; if from artesian wells, then geologists are consulted about the earth's hidden strata. If it is to be used for manufacturing purposes, the manufacturer is consulted; if to be used as a beverage the physician is consulted. But the chemist is concerned, as a chemist, neither in the place nor manner of the origin of water except as it affects his calculations or instruments, nor is he concerned with its subsequent use at the time he analyzes it.

What is true of water is true of milk and everything else. The naturalist defines a mammal and its food secretion which he terms milk. This fluid having been defined by the naturalist, then, and not till then, does the chemist's work begin. He analyzes to see what this substance called milk consists of. What is true of water and milk and everything else is equally true of honey. The chemist has nothing to do with bees as a chemist. He has nothing to do with a honey-comb as a comb, for a comb is a physical not a chemical fact. He has nothing to do with flowers, nor with nectar of flowers, nor with sweet-leaf excretions, nor with plant-lice excretions, nor with a bee's manner of collecting nor manner of storing its food. These things are all in the biologists sphere of labor. The naturalists—the students of bee-life—deal with these matters. He, as a chemist, deals only with substances. Of course, the facts he discovers are very valuable, and aid our practical conduct of life, but this practical application of his knowledge is not to be confused with his laboratory analyses.

On page 13, are four definitions of honey. The first three, "Honey," "Comb Honey," "Extracted Honey," are all definitions with which a chemist as a chemist has no connection whatever. The naturalist, bee-keeper, honey dealer and consumer are the only persons with authority to define these three things. The fourth definition, entitled "Standard Honey," is apparently not honey as a whole, but only a certain kind of honey. Honey would be honey, and be "pure honey," even though it were or were not "standard honey." For their own laboratory use chemists can make as many different standards or chemical statements of differing grades of pure honey as their convenience may demand, and bee-keepers, nor honey consumers, nor naturalists, would be concerned in the least. But the first three definitions can not be allowed for one moment to be within the province of any analytical chemist. Therefore, are we to assail chemists for these definitions—errors? Is it not more likely that the first three definitions were given the Government Chemists, and they deduced therefrom the fourth statement, which is not a definition, and does not profess to be, but is merely a chemical description of a certain grade of honey?

The avicultural bureau, or the customs officials, or the food commissioners, must have made the original definitions of honey, and it is to these authorities rather than the Government Chemists, that criticism of errors should be made. Who gave the Bureau of Chemistry the definitions which they sent out? Let us learn this, then we will know to whom to write. A chemist, as a chemist, has no knowledge whatever of the fact that bees gather nectar from flowers. That fact is outside his scientific province, and he would have no authority whatever to use that fact in any statement as printed below the three definitions given.

As to the three definitions of honey, the third, which defines extracted honey, is the nearest to accuracy, but could be made to include more than its originator probably intended, or bee-keepers would allow under the term. The second, which defines comb honey, would include section honey, bulk honey, extracting-frame honey, and brood-frame honey, though usually only section honey is meant when the term "comb honey" is used. But the first definition of honey in general, which is supposed to include everything entitled to be called honey, is undoubtedly incorrect from the standpoint of the biological scientist, the honey consumer, the honey-dealer, or anybody else.

It is popularly understood, and has been from prehistoric times to the present day, that honey is the stored natural food of adult bees, whether its flavor were sweet or spoiled, whether it was wholesome or poisonous, whether it was white or yellow, or purple. It has always been understood that there were various grades of honey, good, fair, and bad. But so long as it was a natural product uninterfered with by man or other disturbing factor; so long as it was just as the bees stored it, it was pure honey even though only fit to be made into honey-vinegar. Milk is pure milk no matter if, in

spring the cows do eat wild garlic. The quality of the milk may vary with the cow's food and health. But it is still pure milk so long as some other secretion of the cow, such as blood, etc., is not mixed with the milk; and the bee's secretion (chemically changed nectar from any source) is still pure honey no matter whether gathered from fruit-juices, a neighboring farmer's kitchen, or elsewhere.

A natural product may have many grades of various qualities, but a natural product so long as it is left in its natural state can never be called adulterated. Adulteration, for which a man can be punished, is a condition which the man produced, not a condition which a bee produced. A man may be forbidden by food commissioners (on the advice of boards of health) to sell certain grades of honey, not because they are not pure honey, but because they are unhealthy grades of honey, just as a milkman can be forbidden to sell milk of a cow just delivered of a calf, because of its undesirable effects, but not because it is not pure milk. Milk with germs in it is also bad, but that is not a chemical impurity, originally at least. It must have the germs added after leaving the cow. Germs added to honey after the bee stored it would also be an impurity. But in its pristine condition, after being ejected from the bee's sacs into the cell, the honey is pure honey no matter where the bee got her supply of liquid sweet which in her foraging she collected. Any definition of honey must be this broad to be true natural history; and any definition of adulterated honey must include some addition or unnatural modification of this natural product.

The stored natural food of adult bees is undoubtedly honey, no matter where the bee secured its food. If the health boards deem honey-dew an unhealthful source of honey, they may recommend that food commissioners forbid the sale of honey-dew honey, but this is because it is unwholesome honey, not because it is not honey, just as the sale of a badly sprouted potato should not be allowed, not because it is not a potato, but because it is an unwholesome potato.

Honey is the natural, viscid, sweet substance stored by bees for food. It has varying flavors, colors, and qualities, and if the writer understands aright, not always exactly the same chemical make-up. But so long as it is the latter, uninterfered with natural substance, taken by the bee out of her honey-sac, and by her stored in a cell of a bee-comb for the future food of adult bees, or to be later mixed with pollen for young bees, then it is, in the bee's estimation, honey—pure honey. What the bee classes as pure honey, it has heretofore been the custom from Jonathan's day and before down till now, for all mankind to call honey. To make a new definition would be arbitrary. Neither naturalist, consumer, bee, nor bee-keeper is calling for a new definition of honey. Let us keep the old one.

Putnam Co., Ind.



Saving Weak Colonies—A Cheering Experiment

BY ALLEN LATHAM

IN writing our opinions for publication, too many of us I fear write from too narrow a point of view, failing to put ourselves in the other fellow's shoes while offering advice. The veterans, in particular, are writing from the point of view of the specialist, and have all too little sympathy for the tender feelings of the man with two colonies.

For instance, a beginner asks what he shall do with a weak colony, and is told to double it up. Now a man with 100 colonies can not pamper a weak colony, for it will be a waste of his time, for has he not the ninety and nine left? But the man with two colonies does not feel like cutting down his apiary 50 percent at one slash.

I sometimes wonder whether even the old vets don't once in a while recall the time when they would do almost anything to save the individuality of a weakling colony, a time when the loss of a colony carried with it a pang akin to the loss of a child, though the feeling be ever so far removed in degree.

I have not yet reached the time when I can with complacency see the destruction of an individual colony, and I still put myself to great inconvenience to save the life of such. It is the purpose of this article to describe the saving of a little colony last year.

Some seven years ago I fell into possession of a stray swarm which had been living on the branch of an apple-tree two or three weeks. I cut off the branch and fastened it in a common box about which I put many thicknesses of paper with roofing-paper outside. This colony built up and has furnished me with one or two swarms nearly every season since. Naturally it has acquired an individuality of its own.

Last winter nearly proved its death. When the bees flew

in March last there were but a mere handful compared with the pile of dead bees on the bottom-board and the thousands which clogged the spaces between the combs. It was a most disheartened and wretched weakling, and I felt assured that, unless I bore a helping hand, it would be numbered with the dead.

Understand that I am writing to the man with one or two colonies, and you who own your hundreds will only scoff at what I have to say, so you would better not read further.

I made a box much larger than the hive, and in the box arranged a shelf of thin board about 10 inches from the bottom. Flush with this shelf in front was a flaring entrance, while under the shelf was built a chamber which opened by a double door to the outside in the rear. The hive was set in without its bottom-board on the shelf, and all about it was packed ground-cork. Thus the hive was amply protected from cold. Over all was put a tight cover. It required less than one afternoon to put the whole thing together in good shape.

An old gallon can was hunted up, filled with boiling water, and put in the lower chamber. Over the entrance, which I have said was flaring, the outside size being about 10 by 3 inches, was nailed a wire-cloth screen, lightly nailed so that it could be easily stuck on and pulled off.

In less than 3 hours the bees began to feel the warmth from the water and began to appear at the entrance. The next morning I removed nearly a cupful of fragments of bees from the wired-in porch of the hive, and for about 3 days nearly the same amount of refuse was piled out next to the wire-cloth. The colony was extremely weak and made little effort to leave the hive, bending all its energies to house-cleaning. I had, of course, brushed out all the dead bees I conveniently could before setting the hive in place, but the bees found hundreds dead in the cells, and to get them out they had to pull them to pieces.

The can of water was renewed daily, or else brought to the boiling point by setting on the stove. By the way, always remove the stopper when the can is set on the stove. I did not do this one day, and when it blew out later on there was a good exhibition of a spouting geyser.

In a few days this little colony was carrying in more flour and meal than any other colony, and seemed to be getting into prosperous shape. For 3 weeks they carried flour and afforded an opportunity to compare flour with pollen. Flour is a poor substitute, though better than none. Bees brought up on flour appear to be short-lived and less energetic, unless the experiment for some other reason cut down the length of life and energy of the bees. The nurse-bees are rendered costive by flour, and find difficulty in ridding their systems of the pasty mass which, as it is ejected about the hives, has the appearance after drying of vermicelli.

The can of water was furnished the colony for 4 weeks and more, till the colony had gained a strength that warranted letting it shift for itself. By early June it compared very favorably with my average colonies.

I drove a swarm from it late in June, and to-day I have the swarm and the parent colony both in excellent condition, and in every way equal to my best.

I got much pleasure out of the experiment, for the work came at a season when bees required little attention, and there was solid comfort in seeing the colony grow from a hopeless wreck into a self-supporting colony.

So I say to all little bee-keepers: Do not double up your colonies from necessity, for if you wish to save a weak colony so that your apiary may hold its own in numbers, you can do so by doing as I did.

Does it pay to double up? Even if your colonies number hundreds does it pay? Evidently it does or so many successful apiarists would not recommend it. Yet my own experience in doubling up has never been satisfactory in the results obtained.

It has always been my experience that the double swarm seemed to have at the end of a few days only as many bees as the single one which occupied the stand had before doubling. Possibly I do not understand doubling, but it is my opinion that after doubling many bees are stung, many do not like new quarters and leave, and many die from failing to mark the new location. For a day or two the double colony appears to have received new life, but there follows a rapid decline into a state no better than existed before doubling up.

The fact is that in the weak colonies, as a rule, there are only old bees, and old bees are not worth doubling. But if there are a few hundred new-season bees the results will be very different. I have seen amazing results follow the introduction of a pint of young bees into a weak colony—new life and rapid building up quickly follow.

New London Co., Conn.



Convention Proceedings

Papers Read at the Minnesota Convention

Held at Minneapolis Dec. 7 and 8, 1904

SOME THINGS I HAVE LEARNED ABOUT BEE-KEEPING

My first interest in bees dates back to the early fifties, when as a small child I observed an old man hiving new swarms in hives that were up to date at that time. They were boxes 12 or 15 inches square and two feet or more high, hung upon flat posts by cleats nailed to their sides, the posts having similar cleats for the hives to rest upon, and when the hive was in position the bottom was about 15 inches from the ground. The bottom-board slanted enough so that anything dropping down inside the hive was easily carried out by the bees. The bottom-board projected about three inches for an alighting board. Two sticks were fastened crosswise near the center of the hive to help support the comb. Two or three holes were bored through the top of the hive which were closed with stoppers, the same being removed when supers were placed in the hives for the surplus honey. These supers consisted of square boxes and round ones about the size of one peck measure. When this man thought there was surplus honey to take off he would take a broom straw and remove a stopper inside of the super, run the broom-straw in, and upon drawing it out would look for honey on it, and by the amount of honey on the straw he would judge as to whether it was best to take off surplus honey!

It was observing this man handling his bees, and the bits of honey he gave me from time to time, that caused me to try to keep bees later on.

Upon taking my homestead rights in Renville county, in 1877, I still had a desire to try to keep bees, but I was told I could not keep them on the prairie, so I did not undertake it until after some years when I found a swarm of bees had taken possession of a martin house on top of the barn. I tried transferring these bees into a box, but they soon died.

The spring following I bought two colonies and from that time until now I have not been without bees and honey. First I used the Langstroth portico 10-frame hive with wide-frame section-holders in the supers. My bees would swarm before they would work in the supers.

With these I had better success in obtaining honey in sections; but even with the 8-frame dovetail hive and the latest improved section-holder I found only one or two hives in an apiary of 15 or 20 would store much section honey. My opportunity to study and observe the bees was limited, as farm work took my attention, so I learned but slowly from the school of experience.

Now after fifteen years of keeping bees I have decided upon what I believe to be the best method to adopt, to obtain the best results in getting surplus honey, both extracted and comb.

On all good, strong colonies I place full extracting supers with full-comb frames, or full foundation frames. If any of the colonies get the swarming fever and a large swarm comes off I hive it either on full-comb frames or full foundation frames, and place a section super with foundation starter in the sections. In this way I find the bees almost always go to work at once, filling the sections. Sometimes I take the frames from the extracting supers to hive the bees upon, substituting comb foundation frames for the extracting supers.

Now it occurs to me after these years of handling bees, since I have taken more time to observe them, that I have hardly begun to learn anything about them. They do things sometimes that are so unexpected that I have decided it would take much longer time, were I able to do so, to tell what I have yet to learn about bees than what I have learned.

The past summer, on two occasions, I observed a swarm come out of one hive and enter another, the hive of another colony that had just swarmed, and owing to the queen failing to fly, they came back and all entered the same hive peacefully, and each time they swarmed in about 3 days, and I hived them. Both swarms seemed to be double ones and stored a good quantity of surplus comb honey.

Another surprise for me was when I was shaking a plum-

tree I observed what I first thought to be a hornet's nest, but upon closer examination I found was a swarm of bees. This struck me as very strange, as it was Oct. 1, and I had seen no signs for two months or more of the bees swarming. Upon getting the bees down and shaking them in front of a hive I found they had built a good-sized comb on the limb.

In conclusion I will say in behalf of the great State of Minnesota, when one can do as I have done, take many pounds of the finest honey from the cornices of houses, and obtain plums and honey from the same tree, it is a good State to live in. I believe it will be in the lead of all States in all lines of advancement and progress.

Renville Co., Minn.

H. V. POORE.

BEE-KEEPING FROM A WOMAN'S STANDPOINT

Anything that tends to outdoor life has always appealed very strongly to me, so when I began, some three or four years ago, to read a series of articles in one of our farm papers on "Bee-Keeping for Women," my interest in the subject was aroused.

I had always said that there was *one* thing that should not come on our place, and that was a hive of bees, but when I read of the wonderful things that a woman could do, and how alone and unaided, even by her husband, she could supply her own table, and that of all her relatives and friends, and still have enough to sell so that her pocket-book would be full and running over at Christmas time, I was a firm believer in the bee as a money-maker. I at once sent for the "A B C of Bee-Culture," also subscribed for "Gleanings" and later on for the American Bee Journal. Every spare moment was spent in reading, until at last I decided I *must* have a colony of bees.

One April morning I found, among other birthday presents at my plate an envelope containing some money, whereupon the children exclaimed, "Now mamma will have her bees!"

A few days more and I had called upon Mr. Acklin, and made my first investment in one colony of Italian bees, veils, smoker, etc. As that was the first time I had ever seen a bee-hive, and stood in mortal fear of the bees themselves, I felt when I started home that I had thrown my money away.

The next day a telephone message announced the arrival of the bees at the express office, and suggested that I call for them at once. This only increased the "sinky" feeling, but smothering it as best I could I started out although with many misgivings.

My husband came home with me, and suggested that we stop at prayer-meeting on the way home! We did so, but a longer hour I never spent. The possibilities of unction *not divine* in case one of the small boys hanging around outside should take a notion to see the inside of that hive were anything but pleasant to contemplate.

The bees were finally safely landed at home and the number of cakes of honey that were promised to friends from that colony were beyond count.

Imagine my feelings when fall came and I had nothing to show for the summer's work but an empty super and one swarm—a good, strong one, however, which came out July 18.

The next spring the fever ran higher than ever, and when a man drove in one day and offered me three colonies of bees for a pair of fine geese, the trade was quickly made.

I was now fairly started in the business, and in a position to put to the test the theoretical knowledge I had absorbed during my year's reading.

Right here let me say to those who sneer at "book farming," that in my case at least theory and practice have fitted together very nicely. In addition to reading everything I could find on the subject, I have driven miles to talk with other bee-keepers. I have always found them willing and glad to aid a beginner, and many thanks are due them all, for much timely advice and help.

Every year since then I have added to my small beginning, both by natural increase and purchase, until I now have about 35 colonies, and the yield last season, of both comb and extracted honey, far exceeded my expectations.

Living on one of the principal thoroughfares out of Minneapolis, there is a constant demand for honey by people who see the hives in the yard, and I have no trouble in selling my crop at a good price.

A few months ago the question was asked in the Rural New Yorker, how a young woman of 20 could stay on the farm to assist her mother, and at the same time earn a little pin-money for herself. A large number of answers were sent in, advising her to try everything from sewing to small fruit, poultry-raising being the favorite, but not one mentioned bee-

keeping. Just which one the young lady decided to try we shall probably never know, but, if she is like most women, she is experimenting with them all.

It seems to me there is no comparison, both from a financial standpoint and the labor involved, between caring for a flock of poultry large enough to yield an income, and 30 or 40 colonies of bees. I know whereof I speak, for I've tried both.

How much pleasanter it is on a cold, rainy spring day to think that your bees are safely housed than to don waterproof and rubbers—if they're handy, and if not to wade out without them—to chase some poor half-drowned chickens or turkeys that have been foolish enough to leave their mother's wing.

Then, too, during our long, cold winters we know that our bees are safe and sound in the cellar without further care from us until the warm April days call them forth.

So far I have taken care of my 35 or 40 colonies without

any help except at swarming time. Occasionally an obstinate swarm would take to the top of a tall tree, but I have generally been able to control them with a small spray-pump.

I have been surprised to find how few women are engaged in this most interesting of all outdoor occupations. How much better to spend our spare time in the sunshine and fresh air, studying and caring for these tireless little workers, than to strain our eyes over the embroidery frame or intricate lace stitches.

To me there is nothing more fascinating than to watch the bees as they come in with their loads of golden pollen, or to open a hive and study the combs as they are filled with the tiny eggs or the young bees just hatching, and to hunt out the beautiful queen as she moves around among her subjects. Truly we may say, "Marvelous are thy works, O Lord."

Hennepin Co., Minn.

MRS. W. S. WINGATE.

Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

What to Combine With Bees

From time to time the question arises, "What business combines best with bee-keeping?" However it may be with the brothers, most of the sisters have no need to cogitate long about it: for them perforce house-keeping in the fullest acceptance of the term is with bee-keeping the combination. And the combination is not a bad one. A rainy day is not a good time to work with bees; but just the time to put up fruit. House-keeping keeps one too closely in the house; the work at the bees gives the chance for the needed sun and air. The sisters who enjoy bee-keeping, if they do not live the longer for it—and many of them do—have at least more of life for their work with the busy little insects.

See what Mrs. Honaker has to say about it in her article on this page.

Bar-le-Duc Preserves—Currants and Honey

Inserted is this recipe, which never before appeared in print to my knowledge. Up-to-date cooks know that this imported delicacy is becoming more and more popular, as it is better known, though its price made it prohibitive where economy was essential. Where time is no object, and is more plentiful than money, one can now make this at home in the currant season, and nothing surpasses it as a company or holiday dainty.

Take selected red (or white) currants of large size, one by one, carefully make an incision in the skin $\frac{1}{4}$ of an inch in size, with tiny embroidery scissors. Through this slit, with a sharp needle, remove the seeds, separately, preserving the shape of the fruit. Take the weight of the currants in extracted honey, and, when hot, add the currants. Let simmer a minute or two, then seal as jelly. The currants retain their shape, are of a beautiful color, and melt in the mouth. Should the currants liquefy the honey too much, carefully skim them out, reduce the syrup at a gentle simmer to desired consistency, and store as before after adding the fruit.—Boston Cooking School Magazine.

Bee-Keeping for Women—A Desirable Occupation

In almost every rural community there are a number of women with considerable spare time on their hands and with a laudable ambition to engage in some small business which will insure them an individual income. To such, when favorably located, I would say, "Try bee-keeping." There is nothing about or connected with the work repulsive to the most fastidious, nor is there with the possible

exception of cellaring, anything about it beyond the strength of the ordinary woman. Any woman who is able to do the work of the average household, is able to take care of a small apiary. The returns from even a few colonies should, if bees are well managed, be sufficient to insure financial independence; while as experience is gained and the colonies increase, a larger income may be expected.

I do not mean to infer by this that women should endeavor to support themselves by any kind of special effort, but only to encourage those who are able and anxious to "do something," by pointing out to them the advantages of this most desirable occupation for the ambitious woman. For indeed it is a desirable occupation in more respects than one. Profitable, and moreover strengthening and uplifting to body, mind and soul, it is well able to supply the needs of many classes of women. There is possibly no occupation open to women capable of inspiring so much interest, enthusiasm and spiritual contemplation as that of apiculture. Even a woman's natural repugnance to "crawling things" is forgotten, and the wonder and admiration excited by a closer acquaintance with the busy little workers leads her to a greater appreciation of the provision of an all-wise Creator for the "children of men."

Then because of this same uplifting and ennobling influence, I would say to those women who are bowed down with mental care and worry, and who feel that life has brought to them too little of its sweets and too much of its bitter dregs, "Try bee-keeping." Oftentimes this would prove more diverting, more effective than a change of scene and habit which physicians are so prone

to advise. For most country women, especially those whose interests are centered in a farm home, there is small opportunity, and, only too often, small means for travel, in consequence of which the soul-sick and sorrow-burdened woman struggles on in suffering and despair until roused in some chance way, or until death ends the scene. If such a one could or would be induced to undertake the care of a few colonies of bees, untold good would probably result, and life would soon take on a new and broader meaning.

Not only is bee-keeping conducive to mental and moral health, but to physical as well. There is nothing which calls into play all the muscles of the body more effectually, and that, too, in the open air, than the various changes of work called for in bee-keeping. To those, then, who are in declining health, and who feel the need of wholesome outdoor exercise during the pleasant days of summer, I would say, "Try bee-keeping." Many a consumptive and rheumatic sufferer might have been relieved, and possibly cured, if bee-keeping had been engaged in at an early stage in the progress of the disease. Many another might be saved now, by engaging in it before it is too late for any means to avail.

Of course a certain amount of time must be available for the purpose before bee-keeping should be engaged in by any one, whether man or woman, whatever the object. For this reason it should not be undertaken by women whose hands are already full to overflowing with other work. But otherwise, other things being favorable, it is an occupation suitable in every way for women—that is, for those classes and under the circumstances named above.

MRS. MILLIE HONAKER.

Vernon Co., Wis.

Bees Working Well

My bees are getting lots of honey now. They are working well on a good flow. I have 12 strong colonies, all mixed bees. I had all Italians last year, but now all are mixed, I believe.

MRS. D. MAYER.

Cherokee Co., Tex., June 5.

Mr. Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.
By E. E. HASTY, Sta. B. Rural, Toledo, Ohio.

BUYING QUEENS AND FOUL BROOD.

I wish to call attention to the fact that the Illinois Inspector thinks buying queens to be a leading cause of the spread of foul brood into clean territory. The Wisconsin Inspector is on record in the same direction, I believe. Let's have a National Inspector of the queen-breeding yards—bound to publish just what conditions he finds in every apiary that advertises queens for sale. Page 342.

CUT LOAF SUGAR FOR BEE-FEEDING.

Cut loaf sugar as a substitute for candy to put over a colony for wintering seems to have, at least one excellent testimonial from the

sister on page 343. Bees can work at but one side of a candy-cake, while Old Zero works at the other side. The cubes of loaf sugar will be more nearly enveloped by warm bees during the process of slow liquefaction. This sister seems to find that they eat the most of it even in hives where they do not absolutely need it. And that's a good recommend for the form of feeding.

This lady seems to think it remarkable that it took her all last year to learn the different bee-traits. If she actually did all that we shall have to part with her—for the good of the human race. She must enter one of the great astronomical observatories, and in two

years she will discover all the secrets of the universe.

BOSNIAN HIVES SHOULD BE POPULAR.

Bosnia seems to be the place for those who howl about the high price of hives—the government furnishes free lumber to make beehives. "Wish the kickers were all in Bosnia!" (Hive-trust man.)

FEEDING SUGAR AND FEEDING BACK HONEY.

So Hutchinson thinks that feeding sugar and feeding back honey are much alike in that almost any results can be secured. That phrase, "Almost any results can be secured," sounds like a stand-patter, worth memorizing. I suppose a good few of us experimented a little at feeding for sugar-honey—and our sections cost us much more than market price—and nevertheless we knew pretty well that we could make a success of it if it were worth while. Telling outsiders that sugar can not be profitably fed for surplus is not to be recommended—foolish, because they won't believe it—and immoral, because most likely it isn't true. Page 344.

HIVING SWARMS ON DRY COMBS.

Bees do swarm sometimes when they are in a very hungry condition; and it's not good practice to hive such on combs of honey. Results in excitement much like a robbing scrape, with more or less of actual robbing mixed in. Hive them on dry combs, and exchange for the combs of honey at nightfall.

When the honey-flow is on, the practice referred to is not so bad; but even then bees like dry combs best, and will be a little more likely to stay. Page 345.

EXTRACTED VS. COMB HONEY.

I would lift my voice in behalf of that fool on page 345. He is not damaging the honey market probably, while his wise (?) brother may be doing just that thing.

QUEENS AND BABY NUCLEI.

If a queen is put in a baby nucleus only in warm weather, and only when ready to mate, the harm the new device does would seem to be reduced to a minimum. Quite curious if queenless bees are less tolerant of supernumerary young virgins than bees of a colony with a laying queen are. According to John W. Pharr, page 346, the latter will feed them through the wires—presumably by the amount of sting-poison which they evaporate. Yet possibly this last may be wrong. All queens soon die from nerve causes if entirely bereft of company. Perhaps with only enemies for company death would be about as speedy, and the cause about the same.

SOUTHERN CANE SYRUP VS. HONEY.

So, according to the average Southern palate home-made cane-syrup is better than honey. We can thank Mr. Ashley for that item—even if we quarrel with the item itself. Page 348.

Doctor Miller's Question-Box

Send Questions either to the office of the American Bee Journal,
or to Dr. C. C. MILLER, Marengo, Ill.
Dr. Miller does not answer Questions by mail.

Stachelhausen's Practice With Shaken Swarms

On page 246 Mr. Stachelhausen says:

"I put the shaken or natural swarm on the old stand, and the parent colony close by its side; 10 days afterward the most of the bees of the old hive were shaken in front of the swarm and the queen-cells cut out."

I am in the dark as to why he waits 10 days in the case of a natural swarm. Is there not danger that, in case the old colony was not too much weakened by the loss of its field-bees, a second swarm may issue 8 days or so after the first one issued? IOWA.

ANSWER.—Although both shaken and natural swarms are mentioned, I suspect that when Mr. Stachelhausen spoke of "10 days" he had shaken swarms particularly in mind; for surely, in the case of a natural swarm, as you say, there would be danger of a second swarm before the expiration of the 10 days. With a shaken swarm there would be no such danger, provided queen-cells had not been started before the shaking. If I am wrong in any way about it, will Mr. Stachelhausen kindly correct, if this should happen to catch his eye?

Introducing Queen-Cells or Queens

Suppose an apiarist has a number of choice, ripe queen-cells in protectors, or just-hatched virgin queens in cages, and they are of superior strain. How can he introduce them to full colonies, remove the old queen at the time of introduction, and know that they will be accepted, and that the bees will not rear queens from their inferior brood, take the swarming notion, and do other things objectionable? KENTUCKY.

ANSWER.—I don't know. That is, I don't know how he can be entirely sure, for bees are somewhat given to cutting up all sorts of didoes. But by doing as you say he can be as reasonably sure as he can of most things in bee-keeping. Sometimes a queen-cell that looks all right contains nothing but a dead

larva. In that case the colony would start cells of its own, and if strong enough would be likely to swarm as soon as the first virgin was ready to fly. So it would be a little safer to give a virgin queen. If not more than a day old, and caged, its acceptance would be practically certain. Indeed, if you take a virgin not more than 6 hours old—possibly it would be all the same if not more than 24 hours old—go to the hive and give to it the virgin queen without any caging, and then kill the old queen, there would be no question as to acceptance. There are still two "ifs" in the case: if there were no cells in the hive previously, and if the virgin is not lost on her wedding-trip. To provide against the first, you must make sure to kill all queen-cells in the hive at the time of giving the virgin or queen-cell; otherwise you will be pretty sure of swarming; and as to loss on the wedding-trip, you must take your chances and be ready to make good any chance loss.

Best Kind of Bees

Which kind of bees would you advise a beginner to get, the German or black bees, the Italians, or the Carniolans? Which are the best for comb honey? MAINE.

ANSWERS.—1. It doesn't make such a great deal of difference what kind of bees a beginner starts with, as it is so easy to change stock by the purchase of queens. So if he can get no other than black bees handily, let him start with them, and then get an Italian queen. Of course, if he can get Italian stock that will be better.

2. Italians are more gentle than black. Carniolans are reported to be still more gentle; but some report them cross. Carniolans may not all be alike, or not all pure.

Swarms Uniting

Last year a large swarm of bees came off, and while I was preparing to hive them a swarm issued from another hive and settled

with them. I didn't know how to separate them, and as they seemed to agree I put 2 hives together, one on top of the other, making a double-decker of it. They did well. This was a new thing to me. In a few days another swarm came off, and while getting them into the hive a swarm from another colony came pouring into the hive. There was nothing else for me to do but to make another double-decker. This thing was repeated the third time.

This spring one of those double-deckers has swarmed. There seemed to be a half barrel of bees. They couldn't all get in a single hive any way I could fix it, so another double-decker was made.

What should I have done with them, and what am I to do in the future. If they keep this up I will have to get some 10-bushel boxes. IOWA.

ANSWER.—Some throw a sheet over the hive to prevent another swarm uniting with it. If they persist in spite of the sheet, you can help matters by having a smoker in full blast and playing lively upon them. A better way is to have your queens clipped; then when a swarm issues, move the old hive away, set a new hive in its place for the swarm to enter on its return. Pick the queen up when she comes out, and let her run into the new hive with the swarm. With this management swarms will seldom offer to unite.

A Queenless Colony

1. My bees are doing very well now. I wintered 7, but have lost 2, and one other is very weak. What shall I do with it? I think the queen is lost, so I have thought that I would put in with them the first swarm that comes along.

2. Would you advise putting another super on the hive before they swarm? They seem to be rather lazy. WISCONSIN.

ANSWERS.—1. Yes, you can put a swarm with them if they are queenless, or you can unite them with the weakest of the others.

2. Giving more room is not a cure for laziness unless they actually need the room. But be sure to give them all the room they need, and the best way to be sure of that is to give it a little before it is needed.

Asking Questions—Hive-Ventilation—Feeding Honey—Ants In Supers

1. Can one ask as many questions as he wishes, if they are not answered in his bee-books and are about bees?

2. Does a hive need ventilation if in the shade, and, if so, would it need it when the temperature gets up to 90 degrees in the shade or below that? How low can the temperature get before it needs shutting down?

3. Is it all right to feed honey in the comb from a colony that has died during the winter, if it smells all right, and would it be if it did not?

4. Would it do to put a little chunk of comb honey at the entrance at night to stimulate brood-rearing?

5. Do black ants harm anything in the upper stories? IOWA.

ANSWERS.—1. Yes, provided he does not ask more than 52 times in a year.

2. Yes, I once had combs melt down in a hive so thoroughly shaded that the sun did not shine on it all day long; but there was a thicket on one side and a corn-field on the other, so that there was little chance for the air to stir. A colony must have ventilation to some extent always; and, of course, it will have some ventilation with a very small entrance. At any time when bees are busy gathering there should be sufficient ventilation so the bees will hang out. An entrance equivalent to 9 square inches is as little as should be allowed, and if that can not be had otherwise the hive should be blocked up. But 20 square inches of ventilating space is better than 9. There is no need to make any change when the temperature runs up to 90 degrees, nor when it runs down on cold nights.

3. Yes, it is all right to feed honey from a

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colony that died in the winter, unless the colony died of a contagious disease such as foul brood, pickled brood, or black brood.

4. Yes, provided you do not leave it to start robbing in the morning.

5. No, except to annoy the operator by crawling over his hands and biting. There are, however, ants in the South that ruin whole colonies; and even where you live there is a very large kind that honey-combs bottom-boards.

Starting With Bees

I am a novice in the bee-business, having just started this year.

I began by buying one colony of a bee-keeper close by, and the combs are so built that I can not get the frames out to examine them, so I can not tell whether they have started any queen-cells or not, and do not know whether they will swarm in a day or two or a month.

This has been a very cool spring, but we have had a few nice days, and it has not been so cool but that the bees could fly nearly every day. But when we would have a nice day the bees would come out and fly around the front of the hive so one could hardly see it. It has been nice for nearly a week, and the bees are not flying around the hive now, but seem to be working. Do you think they have swarmed and left, or that the last few warm days have brought the flowers out and they are in the field working? White clover is nicely in bloom (June 3), and also a good many wild-flowers. KANSAS.

ANSWER.—It is hard to be positive about it. It may be that the bees tried to swarm on the days when they were so thick on the hive, and some defect prevented the queen flying with them; and it is possible that they were out for a play-spell. If the bees were so thick on the front of the hive that they actually covered it from sight, they were probably swarming—that is, they had swarmed out, and you saw them when they had returned.

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JOHN DOLL & SON BEE-SUPPLIES

Power Building,

MINNEAPOLIS, MINN.

Reports and Experiences

Bees Storing Honey

The bees are working fairly well. Some have two supers on and some one. They are not all filled yet. The colonies which I am running for extracted honey are doing splendidly. I try to keep the bees from swarming, but some of them will do so in spite of all my endeavors. I have had 2 swarms this season, one on May 5 and the other to-day.

D. C. McLEOD.

Christian Co., Ill., June 5.

A Home-Made Wax-Extractor

If any one wishes to get a nice, clean product in wax, and thoroughly rendered, with little expense and labor, I would suggest one of the many ways we have tried. "It works like a charm," and costs but little.

With a can-opener, cut the top out of a square 5-gallon oil-can. Beat the edges smooth, and clean it with boiling soap-suds. Put in the best combs first, and the old brood-

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E. MILTON, MASS., May 27, 1905.
Send me queen same strain as the one sent 1904. That queen proved the best queen I ever received. Her bees filled a super before May 15, 1905.
ROBT. FORBES.

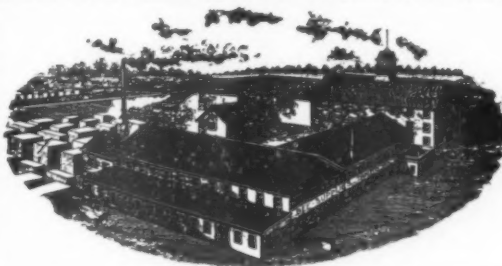
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Tickets will be sold at one fare for the round-trip, plus 25 cents, from Chicago, July 1st, 2d, 3d and 4th, to any point on the Nickel Plate Road. Return limit July 5th. Chicago Depot, La Salle and Van Buren Sts. City Ticket Offices, 111 Adams St., and Auditorium Annex. Telephones Central 2057 and 6172 and Harrison 2208.
11-25A2t



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J. G. Goodner, of this State, writes me that he "prefers to pay \$25 for a Rietsche Press than do without it."—A. G.

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new one; and, also, the new subscriber must not be a member of the same family where the Bee Journal is already being taken.

We think we have made the foregoing sufficiently plain so that no error need be made. Our Premium Queens are too valuable to throw away—they must be earned in a legitimate way. They are worth working for.

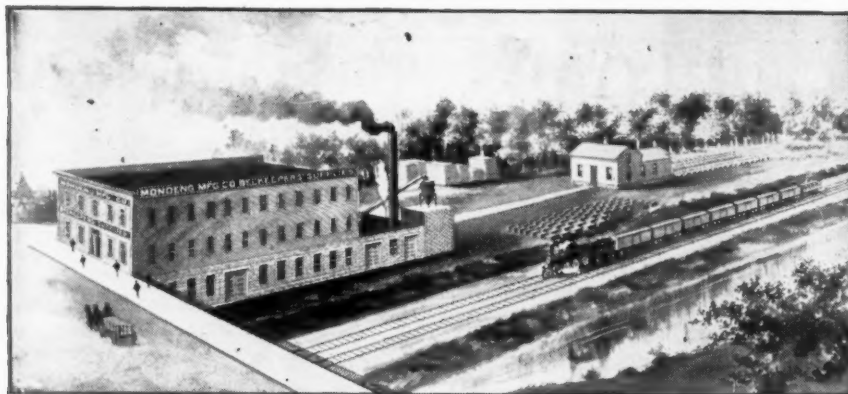
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Will you have one or more?

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combs on top of them, then pour in water till nearly full. Having put on the cover, put a smooth, clean stone on it. The cover is made of heavy galvanized or tinned sheet-iron, with holes made about the center, and nailed to a cross made of boards 3 inches wide, notched to fit each other, or like paste-board in egg-cases, and just the length of the width of the can, so as to keep the cover from tipping as it is forced down.

Boil slowly till all the wax is on top. Let it cool on a slow fire. The combs will render better if exposed to the sun for awhile.

Jamaica, W. I.

ROBT. WEST.

Backward Season—Bees Dying

The season has been backward. Bees did nothing on apple-bloom, and white clover had no honey till the past few days. The bees are booming on it now.

Some 10 days ago as I was looking over the bees I noticed a number crawling on the ground as though they were drunk. Later they seemed to be all coming out of the hive, and the next day all were dead. It was one of the strongest colonies. I can give no reason for their death. No other colonies seem affected any way. I imagine they found poison somewhere. I don't think it could be from spraying.

S. N. BLACK.

Adams Co., Ill., June 2.

Marketing Unripe Honey

The unripe-honey talk in the May 18 issue is right, and if the advice were followed by all producers the demand for honey would surely be greater than it is now. Last year I was particular to extract all the unsealed honey beforehand from every comb, and this was kept warm in a tank over an oil-stove for several days, until it was good and thick.

Of course this did not have quite as good a flavor as the all-sealed honey, but perhaps was better than the whole lot would have been if extracted together.

Ashtabula Co., Ohio. H. E. CROWTHER.

Treatment of Robber-Bees

I had a little experience with robber-bees which might help some one some time. I had a weak colony which I thought to strengthen a little by giving them a frame of brood from a strong colony. I had no sooner done so than another colony of rather black bees commenced robbing this weak one. I covered them up with a horse blanket, but they would crawl under. Then I piled grass before the hive, but to no purpose. I closed the entrance to one bee-way on the start; but they bothered 2 or 3 days. I tried putting the weak colony where the robber-colony was, and vice



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versa, to see what they would do. It worked all right as far as I can see. The robber-bees were pretty quiet for a few days, but are now working nicely. The weak colony, of course, got the field-bees, and peace once more reigns in our midst. I don't know much about bees, but I had to do something, so tried the best thing I could think of. I put away 5 colonies last fall, and brought them through the winter, but lost one after putting them out this spring. H. E. BARTHOLOMEW.

Du Page Co., Ill., June 4.

Home-Made Hives—Honey on Coast

It is hard to say what is best for others, but as I am a carpenter and have a saw-table and tools I can make hives cheaper than I can buy them. Hive-bodies that cost 50 cents at the supply dealer's in Portland cost me 30 cents or less to make them, reckoning \$3 per day for the work, and I use better lumber. In the apiary no one could tell the difference between them and the factory-made hive. If there is a bee-supply trust I don't know it, but nearly all have the same prices. How would it do for the bee-keepers to form a trust or a union?

On page 199 it says, "Oregon was represented by a small quantity of inferior honey," at St. Louis last year. Perhaps that is true, but it also says, "It is said that the honey gathered near the Coast is inferior in quality to that obtained further inland." I am in Wahkiakum county, on the Coast, and have



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No disease. Good Queens and prompt service guaranteed. If you want a business strain of bees send your order to

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considered the honey the very best, if well ripened. I think it far superior to any California honey, and the public are my judges. When I first sold honey here it was always said, "Well, that is honey. It is not like the California honey." That was years ago, and those people are my customers still.

The bees are doing well. They were all strong in the spring, and have 25 and 30 pounds of honey in the supers. **O. K. RICE,** Wabkiakum Co., Wash., May 22.

[It must not be inferred from the above that California honey is inferior to any honey in the world. Every State produces the "best honey," we have learned. It is all according to one's taste as to which is the "best honey."—EDITOR.]

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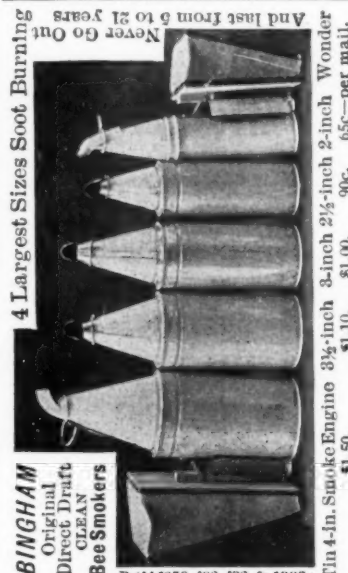
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Honey and Beeswax

CHICAGO, June 7.—The volume of sales is infinitesimal; hence prices are not considered important at this season. Comb brings 12@12 $\frac{1}{2}$ c per pound for best grades, off lots 7@10c. Extracted, 5@7c, according to what it is. Beeswax sells upon arrival at 30c per pound.

R. A. BURNETT & Co.

CINCINNATI, June 2.—There is only a fair demand for honey at the present time. We quote amber extracted honey in barrels at 4 $\frac{1}{2}$ @6c. according to quality. White clover extracted at 6 $\frac{1}{2}$ @8c. The comb honey market is practically closed for the summer. Beeswax, 29c.

THE FRED W. MUTH CO.

BOSTON, May 23.—Our honey market continues very dull, with very little movement to be noted. We quote fancy white at 14c; No. 1, 12 $\frac{1}{2}$ @13c. Extracted, from 6@8c, according to quality.

BLAKE, SCOTT & LEE.

PHILADELPHIA, June 17.—As the season advances, there is very little call for comb honey. In fact, no sales, and we make no quotations. Commission men are accepting any offer they can get for what little stock they have on hand. Extracted honey is in some demand. Possibilities of a big crop are holding prospective buyers back. We quote: Fancy white, 7@7 $\frac{1}{2}$ c; amber, 6@7c; dark, 5 $\frac{1}{2}$ @6c. Beeswax in good demand, 29@30c.

We are producers of honey and do not handle on commission.

WM. A. SELSER.

NEW YORK, April 19.—There is no change in the condition of the honey market. Very little comb honey selling and prices ruling about the same as our last quotations. Extracted in fair demand only. Beeswax firm at 30c.

HILDRETH & SEGELKEN.

KANSAS CITY, May 12.—The honey situation is a little stronger, and there is but little honey left in the hand of the dealers. Best honey bringing from \$2.25 to \$2.50 a case; amber at from 25@50c a case lower. Extracted, 4 $\frac{1}{2}$ @6c. Beeswax, 28c.

C. C. CLEMONS & Co.

CINCINNATI, O., June 9.—There is no demand for comb honey on account of the warm weather. Extracted is in usual demand for this season of the year. We quote white clover at 7@8c; amber, in barrels, at 5 $\frac{1}{2}$ @5 $\frac{1}{2}$ c; in cans, 5 $\frac{1}{2}$ @6c. Beeswax, 28c.

C. H. W. WEBER.

ALBANY, N. Y., June 10.—Our honey market is practically over for this season and won't begin again to any amount until August or September. We have carried over very little stock

of either comb or extracted. We quote nominal quotations for honey in good condition. White comb, 12@14c; mixed, 10@12c; dark, 10@12c. White extracted, 5@6c; dark, 5@6c. Beeswax, 28@32c.

H. R. WRIGHT.

SAN FRANCISCO, May 31.—White comb, 1-lb. sections, 11@12 cents; amber, 8@10c. Extracted, white, 5 $\frac{1}{2}$ @6 cents; light amber, 4@5c; amber, 3@3 $\frac{1}{2}$ c; dark amber, 2 $\frac{1}{2}$ @3c. Beeswax—good to choice, light, 27@29c; dark, 25@26c.

The ship Atlas, sailing Saturday last for New York, carried 236 cases extracted, reported to be Hawaiian Island product. Offerings of this year's California honey so far have not been large, and mainly by sample. The movement on local account is light.

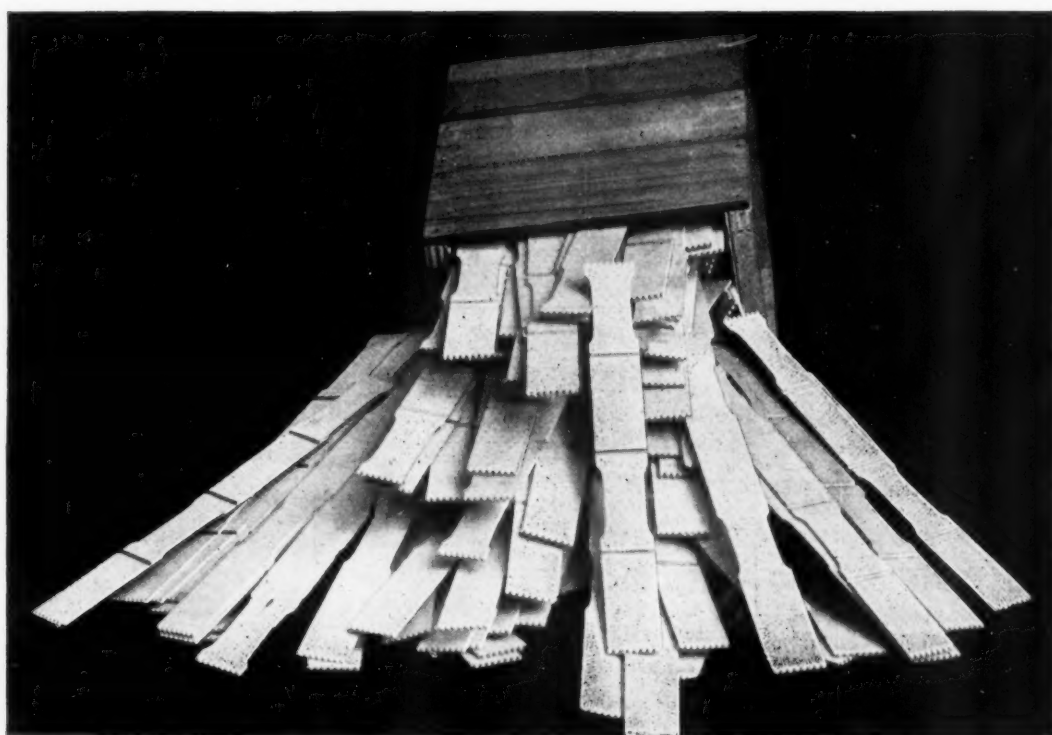
The most attractive eastern excursion during the coming summer will be to Asbury Park, N. J., on occasion of the annual meeting of National Educational Association, July 3 to 7, inclusive, via the Nickel Plate Road and its connections, either the West Shore or Lackawanna Road, with privilege of stop-over at Chautauqua Lake points, Niagara Falls and New York City. Rate, \$21.35 for the round-trip. Dates of sale, June 29 and 30 and July 1 and 2, with extreme return limit of Aug. 31, by depositing ticket. Patrons of this route may have the choice of a ride over the most interesting mountain scenery in New York and Pennsylvania, and through the celebrated Delaware Water Gap, or through the beautiful Mohawk Valley and down the Hudson River, which also includes the privilege of a ride on day line boat on Hudson River, between Albany and New York City, in either direction, if desired. No excess fare charged on any train on Nickel Plate Road. Meals served in Nickel Plate dining cars, on American Club Meal Plan, ranging in price from 35c to \$1.00; also a la carte. Chicago Depot, La Salle St. Station, corner Van Buren and La Salle Sts. City ticket offices, 111 Adams St. and Auditorium Annex.

For further particulars, address John Y. Calahan, General Agent, 113 Adams St., Room 298, Chicago. 7—23A4t

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